GREEN NANOTECHNOLOGY ENABLING WATERPROOFING, REPAIR AND REUSE OF CONSUMER ELECTRONICS

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Key Words: nanocoatings, nanotechnology, PFOA-free, waterproof, consumer electronics

The field of “waterproof electronics”, especially in Smartphones and handheld consumer devices, has transitioned from an emerging technology to a mainstream “must have” technology in 2016. Product launches like the Samsung Galaxy S7, Sony’s Experia, and expected products from Apple, have placed waterproofing at the top of the list of consumer needs. Over 25% of Smartphones are now returned due to user damage, causing billions of dollars of economic loss, with liquid ingress at the top of the list of problems. In order to address this problem, however, it is not enough to simply “coat” the phone or its internal electronics with typical hydrophobic materials, most of which contain toxic fluorocarbons. The market requires sustainable solutions that not only allow these devices to be protected from spills, drops and submersions, but to allow them to be repaired, recycled and re-used, rather than thrown away. Semblant has pioneered the space of green protective nanocoatings, that not only protect against the harshest water and corrosion damage scenarios, but are also invisible, environmentally friendly, and designed to promote a reusable electronics culture. In this paper, Simon McElrea, CEO of Semblant Inc., the market leader in nanoprotective coatings for electronics, will summarize in detail the Smartphone and consumer electronics data related to liquid damage, as well as outline the various market solutions, with emphasis on how to create a green process solution, and drive a new paradigm of repair, re-cycle, and reuse of consumer electronics.